

# Starting Formulation

## SF 7007

### Rapid Curing Potting Compound for Clutch Coils EPON™ Resin 813 and 828 / EPIKURE™ Curing Agent 3271

**Introduction** This formulation is designed for use as a thermal shock resistant, epoxy compound for potting preheated clutch coils. It cures to handling strength in 2 to 3 minute cycles. Maximum properties, including 150 °C heat resistance, are achieved with a post cure of 60 minutes at 120 °C.

Formula	Material	Supplier	Pounds	Gallons
Resin Portion				
	EPON Resin 813	Hexion	63	6.64
	EPON Resin 828	Hexion	37	3.83
	DC-200 Fluid, 100 centistoke grade	Dow-Corning Corp.	0.007	0.001
	Novacite 325 Silica	Malvern Minerals Co.	130	5.89
	1/16-inch Milled Glass <sup>1</sup>		<u>4</u>	<u>0.19</u>
			234.007	16.551
Converter Portion				
	EPIKURE Curing Agent 3271	Hexion	11.4	1.33
	Aromatic Amine Eutectic <sup>2</sup>		<u>7.6</u>	<u>0.81</u>
			19.0	2.14

<sup>1</sup> Epoxy compatible finish (Owens-Corning Fiberglas Co.)

<sup>2</sup> A 60/40 blend of para, para'-diaminodiphenylmethane and meta-phenylenediamine.

**Compounding Resin Portion** – Blend the epoxy resins and DC-200 air release agent to a homogeneous liquid under moderate speed agitation. Add the Novacite filler and milled glass and disperse thoroughly under high shear agitation.

**Converter Portion** – Preheat the aromatic amine eutectic to 52 to 66 °C and agitate in the original container to redissolve any crystallized portion and restore the mixture to a homogeneous state. Combine the aromatic amine eutectic and EPIKURE 3271 Curing Agent, blending under moderate speed agitation to a uniform composition. Package in tightly sealed metal or polyolefin plastic containers.

**Potting Procedure** Preheat the resin portion to 54 °C or higher for convenient pumping and handling. Proportion and mix the resin and converter portions in mechanical metering and dispensing equipment. The ratio of resin portion to converter should be 12.3:1 by weight or 7.7:1 by volume.

Preheat the clutch coil unit to 120 °C and fill with the mixed compound. Maintain the temperature for 2 to 3 minutes. then grind off any overfill if necessary. Postcure the units

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temperature for 2 to 5 minutes, then grind on any stream if necessary. Retain the units for 60 minutes at 120 °C to develop maximum thermal and physical strength properties.

Storage Recommendations regarding storage conditions can be obtained by visiting our web site at [www.hexion.com](http://www.hexion.com)

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